Slide 1

National Research and Development Plan for Aviation Safety, Security, Efficiency, and Environmental Compatibility

www.volpe.dot.gov/resref/strtplns/nstc/aviatrd/index.html.

Slide 2

National R&D Plan For Aviation

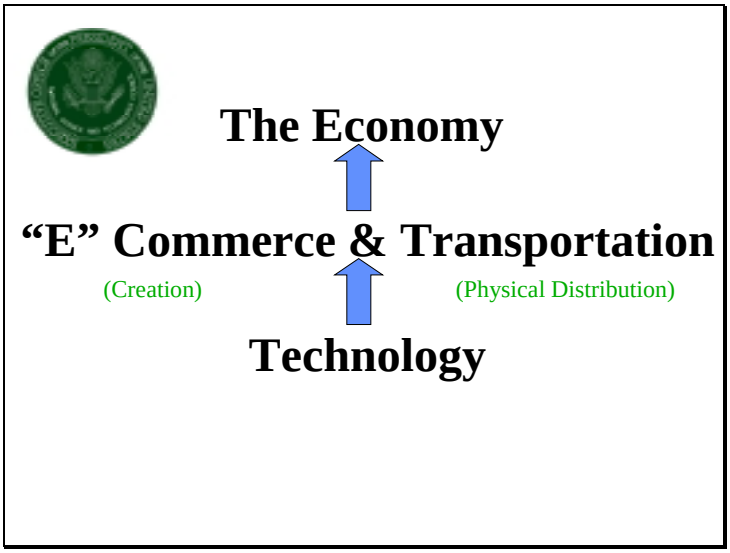
- **Background**
  - White House Commission on Aviation Safety & Security
  - National Aviation Priorities
  - Office of Science Technology Policy Request for R&D Plan
  - Integrated FAA, NASA, DOD Efforts to Achieve Priorities
- **The Plan Shows:**
  - The relationship between FAA, NASA, and DOD to achieve Civil Aviation Goals
  - That research & technology development are critical to achieving real world outcomes that will improve our quality of life
  - The highest level roadmap for each goal showing major agency programs in operations and technology development and their relationship to each other

Slide 3

National R&D Plan For Aviation

- **Aviation is facing serious issues:**
  - Significant increase in airline delays, that will total about $5 B in losses to the aviation industry, shippers and travelers in 1999.
  - Globally, over 500 airports have operational restrictions due to noise and that number will continue to increase. In the U.S., aviation is coming under significant pressure to help communities meet their Clean Air Act requirements, protecting the health of the American people.
  - Aviation safety and security are major public concerns despite excellent safety and security records.
  - Aviation must keep pace with the emerging new economy that is being driven by information technology and communications. This requires greater mobility – faster travel and higher volumes of people and cargo.

Slide 4


The Economy
“E” Commerce & Transportation
(Creation)
(Physical Distribution)
Technology

Slide 5

National R&D Plan For Aviation

- **This Plan brings our Federal Agencies together with the Aviation Industry to solve these problems**
- **Objective : to ensure that the United States does not have to compromise between economic growth and the health and welfare of our citizens.**
- **This plan targets:**
  - Expanding the useful capacity and improving the efficiency of aviation, ensuring the continued development of air transportation with the economic and social opportunities it affords the American people.
  - The implementation of the Free Flight Architecture with advanced automation to establish a modernized National Airspace System, including technology to help eliminate weather delays, is the backbone of making this a reality.
    - This plan also includes technology efforts for affordable small aircraft transportation services.
  - Fulfilling our promise to the American people that the safety and security of aviation will be significantly improved.

Slide 6

National R&D Plan For Aviation

- **This plan has a strong emphasis on technology to solve recurring accident causes and security threats as well as mitigating the effects of accidents and security incidents that do occur.**
- **But the plan goes beyond solving current problems and brings in the power of information technology, modeling, and simulation to anticipate, understand and manage safety and security risks before they become accidents or security incidents.**
- **The plan protects our environment and our communities by working toward the elimination of unacceptable levels of community noise, unhealthy local air quality, and global climate change.**

Slide 7

National R&D Plan For Aviation

- **The plan will guide the priority for R&D investment and partnership between FAA, NASA and DoD for civil aviation.**
  - Implementation will be affected by an Executive Committee comprised of members from FAA, NASA and DoD.
  - Provide a framework for working in partnership with the aviation community
- **The plan will form a basis for developing a consensus across the aviation community on the desired future aviation system.**

Slide 8

Next Steps

- Partner in Implementing the National Aviation R&D Plan
- Develop Aviation Community's "Desired Future State of the Aviation System After Next"
  - Based on Expected Needs
  - Balance Safety, Security, Efficiency & Environmental Improvements
  - Full Range of Future Air Transportation Operations - Commercial, Personal Air, Runway Independent, Cargo, High Speed, Space…
  - Cutting Edge Technologies
- Develop a Government / Industry Consensus on the Need and Content for R&D investment
- Establish National Priority investments in Aviation for Government and Industry